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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.	
10/743,861	12/22/2003	Bryan D. Haynes	18669	9092	
23556 7	7590 12/05/2005		EXAM	EXAMINER	
KIMBERLY- 401 NORTH L	-CLARK WORLDW	RAO, G N	RAO, G NAGESH		
NEENAH, W			ART UNIT	PAPER NUMBER	
•			1722		
			DATE MAIL ED. 12/05/2004	DATE MAIL ED. 12/05/2005	

Please find below and/or attached an Office communication concerning this application or proceeding.

		T	·	<u></u>			
		Application No.	Applicant(s)				
Office Action Summary		10/743,861	HAYNES ET AL.				
		Examiner	Art Unit				
		G. Nagesh Rao	1722				
Period fo	The MAILING DATE of this communication app or Reply	ears on the cover sheet with the	correspondence address				
WHI( - Exte after - If NC - Failu Any	ORTENED STATUTORY PERIOD FOR REPLY CHEVER IS LONGER, FROM THE MAILING DATE of time may be available under the provisions of 37 CFR 1.13 SIX (6) MONTHS from the mailing date of this communication. O period for reply is specified above, the maximum statutory period varie to reply within the set or extended period for reply will, by statute, reply received by the Office later than three months after the mailing ed patent term adjustment. See 37 CFR 1.704(b).	ATE OF THIS COMMUNICATION  36(a). In no event, however, may a reply be to the state of the state	NN. imely filed m the mailing date of this communication IED (35 U.S.C. § 133).				
Status			•				
1)⊠	Responsive to communication(s) filed on 21 Ju	ıly 2005.					
2a) <u></u>	This action is <b>FINAL</b> . 2b)⊠ This action is non-final.						
3)	Since this application is in condition for allowance except for formal matters, prosecution as to the merits is						
	closed in accordance with the practice under E	x parte Quayle, 1935 C.D. 11, 4	453 O.G. 213.				
Disposit	ion of Claims		•				
4)⊠	Claim(s) <u>1-20</u> is/are pending in the application. 4a) Of the above claim(s) is/are withdray						
5)	Claim(s) is/are allowed.	•					
6)⊠	Claim(s) 1-20 is/are rejected.						
•	Claim(s) is/are objected to.						
8)	Claim(s) are subject to restriction and/o	r election requirement.					
Applicat	ion Papers						
	The specification is objected to by the Examine	ur .					
•	The drawing(s) filed on is/are: a) acce		Examiner.				
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).							
11)□	Replacement drawing sheet(s) including the correct The oath or declaration is objected to by the Ex	ion is required if the drawing(s) is o	bjected to. See 37 CFR 1.121	(d).			
Priority (	under 35 U.S.C. § 119						
12)	Acknowledgment is made of a claim for foreign  All b) Some * c) None of:	priority under 35 U.S.C. § 119(	a)-(d) or (f).				
/	1. Certified copies of the priority documents	s have been received.					
	2. Certified copies of the priority documents have been received in Application No						
	3. Copies of the certified copies of the prior	rity documents have been recei	ved in this National Stage				
٠	application from the International Bureau	u (PCT Rule 17.2(a)).	•				
* See the attached detailed Office action for a list of the certified copies not received.							
	•			•			
Attachmer	nt(s)						
_	ce of References Cited (PTO-892)	4) 🔲 Interview Summa		•			
	ce of Draftsperson's Patent Drawing Review (PTO-948) mation Disclosure Statement(s) (PTO-1449 or PTO/SB/08)	Paper No(s)/Mail	Date Patent Application (PTO-152)				
Pape	er No(s)/Mail Date	6) Other:					

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## Claim Rejections - 35 USC § 102

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

Claims 1, 2, 5, 6, 7, 8, 9, 10, 11, 13, 14, 15, and 16 rejected under 35
 U.S.C. 102(b) as being anticipated by Bentley (US Patent No. 6,565,344 B2).

Please note that the die-tip block does not necessarily have to be extruding meltblown fibers, just capable, since the material worked upon is viewed as just a recitation of intended use.

Bentley 344 teaches an apparatus for producing multi-component liquid filaments which includes a die tip block for extrusion of meltblown materials comprised of the following as seen in Figures 1-6 and anticipated by claims 1 and 5, where there being a top surface with two separate inlets (14 and 16) for materials to flow through into conduits (52 and 54) which flow into the interior of a die tip block whereby becoming a first plurality of outlets and second plurality of outlets (26a and 26b) anticipating plurality of orifices.

The plurality of outlets converge at an intersecting angle (an angle as seen in figure 3a as being an acute angle) trough (56) to a discharge outlet die tip (26).

Along the process of material flow the diameter of the passageways get smaller towards the end into the discharge outlet as can be seen in figure 3a Application/Control Number: 10/743,861 Page 3

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(anticipates the idea of the capillary having a smaller diameter than the first diameter as claimed by applicant).

## Claim Rejections - 35 USC § 103

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negatived by the manner in which the invention was made.

The factual inquiries set forth in *Graham* v. *John Deere Co.*, 383 U.S. 1, 148 USPQ 459 (1966), that are applied for establishing a background for determining obviousness under 35 U.S.C. 103(a) are summarized as follows:

- 1. Determining the scope and contents of the prior art.
- 2. Ascertaining the differences between the prior art and the claims at issue.
- 3. Resolving the level of ordinary skill in the pertinent art.
- 4. Considering objective evidence present in the application indicating obviousness or nonobviousness.
- 2. Claims 3-4, and 17-20 rejected under 35 U.S.C. 103(a) as being unpatentable over Bentley (US Patent No. 6,565,344 B2) in view of Harding (US Patent No. 3,825,380).

From the aforementioned Bentley 344 teaches a die tip block that anticipates claimed invention.

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However Bentley 344 lacks the specific teachings of size ranges for the die openings.

In an apparatus for meltblowing, Harding 380 teaches a similar die-tip for extruding meltblown fibers in a linear rather than angular fashion. Harding 380 discusses various die-opening sizes (Column 5 Lines 5-10 and Lines 62-67) from .002 inches (.0508 millimeters) to .022 inches (.60 millimeters), which falls within range of applicant's claimed die opening sizes.

It would be obvious one skilled in the art to modify Bentley 344 with the teachings of Harding 380 given the related art and the desire to extrude smaller and finer materials from the die-head for higher quality of material.

## Response to Arguments

3. Applicant's arguments filed 7/21/05 have been fully considered but they are not persuasive. Applicant's attempt to contend that their conduits are connected to a series of capillaries, however in claim 13 for example this no preclusion that each conduit being connected to it's own set of capillaries within the claimed series of capillaries. Furthermore there is no explicit claiming of the physical convergence of the multi-component liquid filaments up at the top of the device where the material from one entrance and a second entrance mix up together. Albeit this a method limitation, there is no structural indication of such a means about the

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apparatus being capable of performing such an ability in the claims. Therefore the prior art stands to read on applicant's claimed invention.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to G. Nagesh Rao whose telephone number is (571) 272-2946. The examiner can normally be reached on 9AM-5PM.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Duane Smith can be reached on (571) 272-1166. The fax phone number for the organization where this application or proceeding is assigned is 703-872-9306.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see http://pairdirect.uspto.gov. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

**GNR** 

11/23/05